

611-TD-583-001

EOSDIS Core System Project

M&O Procedures: Section 20 – Library Administration

Interim Update

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Raytheon Company
Upper Marlboro, Maryland

Preface

This document is an interim update to the Mission Operations Procedures Manual for the ECS Project, document number 611-CD-510-001. This document has not been submitted to NASA for approval, and should be considered unofficial.

The ECS Library Administration is provided by several departments within the ECS project through the combined resources of Data Management (DM), Configuration Management (CM), and the System Monitoring Center (SMC). Library Administration includes (1) production, maintenance, and distribution of baselined ECS documents, (2) delivery of approved commercial-off-the-shelf (COTS) software, documentation, and non-contractual documentation to the DAACs and other Government facilities; and (3) DAAC specific production, maintenance, and distribution of documents which, due to a more timely need for document updates, are produced locally and are tailored to reflect individual DAAC needs and configurations. The DAAC specific updates are eventually incorporated into ECS approved documents. There are three web sites that function as electronic distribution points for the approved data and documents. These web sites are maintained by DM, CM and SMC respectively: The ECS Data Handling System (EDHS), the ECS Baseline Information System (EBIS), and the System Monitoring Center (SMC). All of these processes are discussed in more detail in this Library Administration section.

Any questions should be addressed specifically to Data Management, Kevin Pointer; CM, Charles Poole; and M&O COTS configuration, Gary Gavigan or to Rodney Creecy for general documentation issues:

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20. Library Administration

20.1 ECS Library Administration Overview

The ECS Library Administration is provided by several departments within the ECS project through the combined resources of Data Management (DM), Configuration Management (CM), and the System Monitoring Center (SMC). Library Administration includes (1) production, maintenance, and distribution of baselined ECS documents, (2) delivery of approved commercial-of-the-shelf (COTS) software and documentation and non-contractual documentation to the DAACs and other Government facilities; and (3) DAAC specific production, maintenance, and distribution of documents which, due to a more timely need for document updates, are produced locally and are tailored to reflect individual DAAC needs and configurations. The DAAC specific updates are eventually incorporated into ECS approved documents. There are three web sites that function as electronic distribution points for the approved data and documents. These web sites are maintained by DM, CM and SMC respectively: The ECS Data Handling System (EDHS), the ECS Baseline Information System (EBIS), and the System Monitoring Center (SMC). All of these processes are discussed in more detail in this Library Administration section.



Figure 20-1. The EDHS Home Page, the ECS Baseline Information Home Page, and the System Monitoring Center Home Page

20.1.1 Data Management (DM)

DM is the focal point for establishing and advancing all project document/data management activities. In this regard, DM works closely with all ECS offices to provide efficient and cost-effective distribution, storage, maintenance, and retrieval of these data. DM is responsible for maintaining ECS data/documentation which includes documents under control of the ECS

Change Control Boards (CCB) and subordinate CCBs. DM's responsibilities encompass three functional areas: (1) Data Requirements refers to the deliverable documentation specified in the Contract Data Requirements List (CDRL) as well as other data items that document the ECS Project; (2) Data Control activities focus on the efficient archive, storage and maintenance of materials that support such things as milestone reviews, technical papers and white papers; and other pertinent data such as contract correspondence, progress reports, and background information; and (3) Data Support includes the preparation of documentation for publication. This includes format editing, document coordination, graphics, layout, and reproduction. The Document Coordination staff is responsible for all activities required to prepare CDRLs and other documentation required by the contract. To make documentation readily available, DM has established an electronic distribution via the World Wide Web through the EDHS, (<http://edhs1.gsfc.nasa.gov>).

20.1.1.1 Authoring Documents

ECS CDRLs and other documents are authored by project personnel using existing tools and templates to ensure consistency and completeness with customer requirements. A standard set of software applications are used across the ECS Project. The use of this common set of production tools by both the development personnel and the documentation staff reduces redundant activities such as key strokes and art preparation.

20.1.1.2 Formatting Documents

To ensure compliance with customer standards and to promote consistency and ease of use, a standard tool kit of document formats or templates was developed by DM. These templates are located on the ECS Internal Server portion EDHS web site under the Data Management Document Templates and Guidelines, and are used by authors to develop CDRLs and other types of documents. After a document is written or updated by an author, it is then forwarded to DM for further processing. DM assigns the document a unique document number and reviews the document for completeness and format accuracy.

20.1.1.3 Posting and Retrieval of Documents

After documents are formatted and reviewed by DM, they are reviewed and approved by the appropriate Configuration Change Board (CCB) and other reviewers as required. Approved documents, which are not otherwise restricted, are posted to the EDHS. The EDHS web site provides on-line search and retrieval of ECS documentation and is the primary repository of information maintained by the ECS Project. DM maintains the EDHS web pages and is responsible for the integrity of all posted documentation.

20.1.1.4 Distribution and Maintenance of Documents

ECS CDRLS and Required Documents are maintained by DM, for the life of the project. A Baseline change to an Earth Observing System Data and Information System (EOSDIS) approved documents is accomplished through a document change notice (DCN) or revision. Documentation produced by the project is distributed internally and/or to the customer.

Dissemination includes printed hardcopy and/or electronic posting as indicated in the preceding section.

20.2 Configuration Management (CM) Overview

The ECS CM Office requirements and objectives in support of ECS Library Administration are to maintain and publish ECS Technical Baseline Documentation on the ECS Baseline Information System (EBIS), located on the following url: (<http://cmdm.east.hitc.com/baseline/>) or (<http://pete.hitc.com>).

20.2.1 Configuration Management (CM)

The ECS Technical Baseline documents are updated when the M&O CCB approve CCRs, which pertain to the DAACs. This naming convention is defined in 910-TDA-001, Baseline Specification Document.

The EBIS contains different types of documents within the ECS Project, such as:

1. Technical Documents, posted as CCRs are approved by CCB
2. Delivery Reviews, shows detail information on drops and changes
3. Release Tapes, Shows /us/bincksum data for all files on all major Release Tapes.
4. VDDs, Release documents, Build Plans, COTS upgrades, Custom Software.
5. Pre-Ship Reviews, PSR documents – Installation Instructions, VDD drafts.
6. Build Plans
7. Test Executables
8. ECS Configuration
9. Operational Modes
10. COTS Status
11. SMC WWWBoard

20.2.1.1 Posting/Retrieval of Documents/Software from Configuration Management Server

Information being disseminated by <http://cmdm.east.hitc.com/baseline/> must have been approved by the CCB.

Documents are posted in PDF format, and are posted in accordance with 905-TDA-001. Documents are posted on the EBIS with the current revision level for that document. If there is any question relating to any document on the EBIS page, contact the CM Administrator listed on the WEB Site page.

20.2.1.2 ECS Software Library Maintenance

The ECS Software Library is responsible for controlling and tracking all approved COTS software for the project. CD's, tar files, and other media is disseminated to the SMC or DAACs depending on the type of COTS software. The Software Library maintains previous versions of COTs products and has the responsibility to ensure that only COTs products have an approved CCR before release of the product.

20.3 System Monitoring Center (SMC) System Overview

The SMC system requirements and objectives in support of ECS Library Administration are overall system performance monitoring, coordinating, and setting system wide policies and priorities

20.3.1 System Monitoring Center (SMC) System

The SMC servers are the distribution points for:

1. Staging area and distribution for ECS Custom/COTS Software deliveries.
2. Medium for the distribution of non-contractual documentation to the sites. Documents such as README file, COTS electronic instructions, Technical white papers, CCRs, NCR Workaround instructions, database scripts repository etc....
3. Maintains copies of all deliverables that include, but are not limited to, binaries, executables, Toolkit deliveries, test data, NCR workarounds, README files, general instructions, etc.

Information can be retrieved from the SMC by accessing the Website. The URL is as follows (<http://m0mss01.ecs.nasa.gov/smc/>)

20.3.1.1 Posting/Retrieval of Documents/Software from System Monitoring Center (SMC) Server

The Systems Monitoring Center Staff will be responsible for the dissemination of information provide to the SMC. Information can come from a variety of sources such as EDF, DAACs, and others. The submitter will notify the SMC staff (via phone, pager, or e-mail) that the files are ready. The software and the supporting documentation can either be pushed to the sites or pulled by the sites for installation

20.3.1.2 Authoring Documents

A Systems Operation Support (SOS) sustaining engineer will create all source material (text, graphics files, etc.) per CDRL/DID preparation instructions and be accountable for the accuracy of its content. Local DAAC production personnel will assist the author by providing word-processing and graphics support such as templates and fonts.

20.3.1.3 Formatting Documents

All documents submitted to the SOS Book Boss by a SOS Engineer staff member should be in Microsoft Word format. These DAAC specific documents are numbered and controlled locally to include a review for completeness and format accuracy.

20.3.1.4 Submitting Documents

All documents submitted to the SOS Book Boss should be in soft copy. Soft copy should be sent via electronic mail as an attachment .

20.3.1.5 Requesting Documents

Requests for documents may be made by telephone, in person, or by electronic mail.

20.3.1.6 Metadata Maintenance

See Chapter 10 Metadata Administration.

20.4 On-Site Documentation Overview

On-site documentation requirements and objectives in support of ECS Library Administration are to generate site specific documentation in accordance with program standards and conventions for format storage and control. SOS resources will be kept informed and utilized as appropriate

20.4.1 On-Site (DAAC Specific) Baselined (CDRL/DID) Document Production, Maintenance, and Distribution

The on-site documentation activities are described in the paragraphs below.

20.4.1.1 Authoring Documents

The assigned engineer will create all source material (text, graphics files, etc.) per CDRL/DID preparation instructions & be accountable for the accuracy of its content. The DAAC's Book Boss will oversee the development of the documents and act as the interface between Local DAAC production personnel and the DAAC's assigned engineers. Local DAAC production personnel will assist the author by providing word-processing and graphics support such as templates and fonts.

The DAAC Book Boss can request the assistance/assignment of a SOS Book Boss to assist in the development of a document. In this case, the SOS Book Boss can serve as the focal point for editing, publication and dissemination of the document. The SOS Book Boss can also draw on M&O resources to assist in writing sections as needed or requested by the DAAC Book Boss.

20.4.1.2 Submitting and Formatting Documents

All documents submitted to the DAAC's Book Boss should be in MS Word format and also, if possible, in hard copy. Soft copy should be sent via electronic mail as an attachment and hard copy could be hand delivered to SOS Library. These DAAC specific documents are numbered and controlled locally to include a review for completeness and format accuracy.

20.4.1.3 Requesting Documents

Requests for documents may be made by telephone, in person, or by electronic mail.

20.4.1.4 Metadata Maintenance

Science Coordinator technically interfaces with the Science Computing Facilities by updating Interface Control Documents (ICD).

20.4.1.5 Maintenance of Baselined ECS Documents in Baseline Manager Tool

The Baseline Manager Tool (XRP-II) will be used to record the change history and updates to post current revisions to the Baselined ECS documents. This tool will also be used to provide the Master Index for the SOS Library.

20.4.1.6 Document Metadata Insertion Subscription

The SOS Library is the repository for all SOS Maintained documents (both hard copy and electronic). COTS documentation will be physically located in the library in it's own section. Documentation available on CD-ROM will be located in a separate cabinet. Documentation available on-line will be posted in the SOS Library and on the Document Management Server.

20.5 Systems Operation Support (SOS) COTS Overview

The SOS system requirements and objectives in support of ECS Library Administration are to enhance and streamline documentation activities related to operations and DAAC specific activities.

20.5.1 SOS COTS Document & Software Maintenance

The activities associated with documentation and software maintenance are described in the sections below.

20.5.1.1 COTS Library Database

The COTS library database designed in Microsoft Access is a means of controlling and maintaining Commercial Off the Shelf (COTS) documentation and software residing in the library. SOS personnel have access to the library database through the Document Management Server (DMS). The database enables SOS personnel to locate and retrieve document information. By using any of the available fields in the database, the user has the ability to search the contents

of it. The library database search provides the user adequate information to retrieve the most current version of a document. Requesting COTS documentation may also be made via the database in which the SOS Librarian will receive notice as soon as the request is sent.

20.5.1.2 Document Access Control

The Libraries database enables SOS personnel to locate and retrieve document information. Only the librarian has the capability to add, edit, and delete. SOS personnel will have access to this database for visualization purposes via the Document Management Server.

20.5.1.3 COTS Library Reports

COTS Library inventory reports are generated as requested.

20.5.1.4 COTS Hardware and Software Procured By M&O To Be Deployed For Use On the M&O Local Area Network

Each DAAC has a non baselined hardware and software configuration, which supports their site office automation environment for non production activities. Maintenance and Operations Hardware used by the DAAC's and SMC staff to monitor, analyze, report, and manage the operational baseline. M&O provides hardware and software for each site as specified in the DID 607 & 608 ECS documents. The M&O environment is not part of the CM controlled ECS baseline. COTS software installed on the M&O network will not be maintained in the ECS COTS library but, rather, by the DAAC CM staff, who will assure that they have copies of all software that is installed on the M&O network.

Hardware or software procured for a site to be installed on the M&O LAN, will be received at the EDF and controlled under the procedures outlined in the ECS Property Management Plan and associated Project Instructions. After property is properly controlled it will be shipped to the appropriate site with a CCR showing how and where it should be installed).

20.5.1.5 On-Site COTS Document & Software Maintenance

ECS products deployed to the operational sites that has been released for operational use is maintained in the M&O Documentation and Software COTS Library maintained at each site (On-Site SW Library). Site personnel maintain partitioned libraries to facilitate access control of science software and other software not developed by ECS. Site personnel are responsible for any CM activities concerned with this library.

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